

Journal of Power Sources 111 (2002) 363-366



www.elsevier.com/locate/jpowsour

## Subject Index of Volume 111

AB<sub>2</sub> alloys

Metal hydrides; Electrochemical studies; Etching; Hydriding and dehydriding (Ramya, K. (111) 335)

Absorptive-glass microfiber

Recombinant-battery separator mat; Valve-regulated; Lead-acid (McGregor, K. (111) 288)

ac Impedance

Ambient temperature use; Composite solid polymer electrolyte; Cyclic voltammetry; Nanosize alumina; Polymer chain reorganization (Nookala, M. (111) 165)

Activation

Proton-exchange membrane fuel cell (Qi, Z. (111) 181)

Alkaline batteries

Electrolytic manganese dioxide; Pulse current; Electrodeposition (Ghaemi, M. (111) 248)

Ambient temperature use

ac Impedance; Composite solid polymer electrolyte; Cyclic voltammetry; Nanosize alumina; Polymer chain reorganization (Nookala, M. (111) 165)

Anode material

Lithium ion batteries; Natural graphite; Nitric acid (Wu, Y.P. (111) 329) Anode

Thin film; Tin-alloying; Microbattery; Cycling performance (Lee, S.-J. (111) 345)

Anodic deposition

Nickel oxide; Cyclic voltammetry; Potentiostatic deposition; Nickelbased battery (Hu, C.-C. (111) 137)

Backup power system

Coup de fouet; Voltage dip; Capacity; Valve-regulated lead-acid battery (Pascoe, P.E. (111) 304)

Battery electrochemical cell

Electrical conductivity; Transport number; Plasticizer effect; Polymer (Subba Reddy, Ch.V. (111) 357)

Battery

Polyanion; Lithium insertion; Redox potential (Manickam, M. (111)

Biofuels production

Biomass; Fuel cell vehicles (Hamelinck, C.N. (111) 1)

Biomass

Biofuels production; Fuel cell vehicles (Hamelinck, C.N. (111) 1)

Calcination

Sol-gel method; LiNiO<sub>2</sub>; Optimum synthesis condition; Preheating; Electrochemical properties (Song, M.Y. (111) 97)

Capacity fade

Li-ion cells; LiCoO<sub>2</sub>; Cell-Batt<sup>®</sup>; Sony 18650; Spinel (Ramadass, P. (111) 210)

Capacity

Coup de fouet; Voltage dip; Valve-regulated lead-acid battery; Backup power system (Pascoe, P.E. (111) 304)

Carbon additives

Lithium batteries; Conducting agent; Carbon blacks; Graphite (Hong, J.K. (111) 90)

Carbon anodes

Lithium intercalation/de-intercalation; Graphite fibres; Mesocarbon microbeads; Hard carbon materials (Noel, M. (111) 193)

Carbon blacks

Lithium batteries; Carbon additives; Conducting agent; Graphite (Hong, J.K. (111) 90)

Carbon electrode

Impedance; Lithium-ion battery; Storage time (Song, J.Y. (111) 255)

Cathode materials

Li-ion cells; Ohmic resistivity; Voltage drop; Co doped nickelates (Moshtev, R. (111) 39)

Cell-Batt®

Li-ion cells; LiCoO<sub>2</sub>; Capacity fade; Sony 18650; Spinel (Ramadass, P. (111) 210)

Ceramic oxygen generator

Electrolyte model; Ion-conducting membrane; Oxygen semi-permeability; Solid oxide fuel cell (Chan, S.H. (111) 320)

Charge rate

Cycle-life; Li-ion cell; Charge voltage; Float charge (Choi, S.S. (111) 130)

Charge voltage

Cycle-life; Li-ion cell; Charge rate; Float charge (Choi, S.S. (111) 130)

Co doped nickelates

Li-ion cells; Ohmic resistivity; Voltage drop; Cathode materials (Moshtev, R. (111) 39)

CO-tolerant cathode catalyst

Proton-exchange membrane fuel cell (Qi, Z. (111) 239)

Cobalt substituted nickel oxide

Molten carbonate; Fuel cell; Dissolution (Ganesan, P. (111) 109)

Composite solid polymer electrolyte

ac Impedance; Ambient temperature use; Cyclic voltammetry; Nanosize alumina; Polymer chain reorganization (Nookala, M. (111) 165)

Conducting agent

Lithium batteries; Carbon additives; Carbon blacks; Graphite (Hong, J.K. (111) 90)

Corrosion layer

VRLA; EPMA; Ultra-microtoming (Ball, R.J. (111) 23)

Coup de fouet

Voltage dip; Capacity; Valve-regulated lead–acid battery; Backup power system (Pascoe, P.E. (111) 304)

Creep

Diffusion; Oxide; Fuel cell; Fluorite (Wolfenstine, J. (111) 173) Crystallinity

Starch-assisted combustion synthesis; Electrochemical activity; LiCoO<sub>2</sub>; LiMn<sub>2</sub>O<sub>4</sub>; Lithium cathodes (Kalyani, P. (111) 232)

Cycle-life

Li-ion cell; Charge voltage; Charge rate; Float charge (Choi, S.S. (111) 130)

Cyclic voltammetry

ac Impedance; Ambient temperature use; Composite solid polymer electrolyte; Nanosize alumina; Polymer chain reorganization (Nookala, M. (111) 165)

Elsevier Science B.V.

Cyclic voltammetry

Nickel oxide; Anodic deposition; Potentiostatic deposition; Nickelbased battery (Hu, C.-C. (111) 137)

Cycling performance

Thin film; Anode; Tin-alloying; Microbattery (Lee, S.-J. (111) 345)

Diffusion

Creep; Oxide; Fuel cell; Fluorite (Wolfenstine, J. (111) 173)

Direct methanol fuel cell

Mixed-reactant anode; Selective anode; Numerical modelling (Shukla, A.K. (111) 43)

Dissolution

Cobalt substituted nickel oxide; Molten carbonate; Fuel cell (Ganesan, P. (111) 109)

**DMFC** 

Stack; System; Efficiency (Dohle, H. (111) 268)

Efficiency

DMFC; Stack; System (Dohle, H. (111) 268)

Electrical conductivity

Battery electrochemical cell; Transport number; Plasticizer effect; Polymer (Subba Reddy, Ch.V. (111) 357)

Electrochemical activity

Starch-assisted combustion synthesis; Crystallinity; LiCoO<sub>2</sub>; LiMn<sub>2</sub>O<sub>4</sub>; Lithium cathodes (Kalyani, P. (111) 232)

Electrochemical capacitor

Supercapacitor; Hybrid capacitor; Energy storage (Park, J.H. (111) 185) Electrochemical properties

Sol–gel method; LiNiO<sub>2</sub>; Optimum synthesis condition; Preheating; Calcination (Song, M.Y. (111) 97)

Electrochemical studies

Metal hydrides; AB<sub>2</sub> alloys; Etching; Hydriding and dehydriding (Ramya, K. (111) 335)

Electrodeposition

Alkaline batteries; Electrolytic manganese dioxide; Pulse current (Ghaemi, M. (111) 248)

Electrolyte model

Ion-conducting membrane; Oxygen semi-permeability; Ceramic oxygen generator; Solid oxide fuel cell (Chan, S.H. (111) 320)

Electrolytic manganese dioxide

Alkaline batteries; Pulse current; Electrodeposition (Ghaemi, M. (111) 248)

Encapsulation

Lithium ion batteries; Graphite anode; Poly(acrylonitrile) (Guo, K. (111) 350)

Energy storage

Supercapacitor; Electrochemical capacitor; Hybrid capacitor (Park, J.H. (111) 185)

EPMA

VRLA; Corrosion layer; Ultra-microtoming (Ball, R.J. (111) 23) Etching

Metal hydrides;  $AB_2$  alloys; Electrochemical studies; Hydriding and dehydriding (Ramya, K. (111) 335)

Float charge

Cycle-life; Li-ion cell; Charge voltage; Charge rate (Choi, S.S. (111) 130)

Fluorite

Creep; Diffusion; Oxide; Fuel cell (Wolfenstine, J. (111) 173)

Formic acid

Portable power; Micro powergeneration; Polymer electrolyte membrane (PEM) fuel cells (Rice, C. (111) 83)

Fuel cell vehicles

Biomass; Biofuels production (Hamelinck, C.N. (111) 1)

Fuel cell

Cobalt substituted nickel oxide; Molten carbonate; Dissolution (Ganesan, P. (111) 109)

Fuel cell

Creep; Diffusion; Oxide; Fluorite (Wolfenstine, J. (111) 173)

Fuel cells

Hydrogen production; Low temperature; Methane reforming; Nickel catalyst (Liu, Z.-W. (111) 283)

Gas turbines

Molten carbonate fuel cell (MCFC); Power systems simulation (Jurado, F. (111) 121)

Graphite anode

Lithium ion batteries; Encapsulation; Poly(acrylonitrile) (Guo, K. (111) 350)

Graphite fibres

Carbon anodes; Lithium intercalation/de-intercalation; Mesocarbon microbeads; Hard carbon materials (Noel, M. (111) 193)

Graphite

Lithium batteries; Carbon additives; Conducting agent; Carbon blacks (Hong, J.K. (111) 90)

Hard carbon materials

Carbon anodes; Lithium intercalation/de-intercalation; Graphite fibres; Mesocarbon microbeads (Noel, M. (111) 193)

High-power

Impedance; Lithium-ion (Bloom, I. (111) 152)

High-rate capability

Hydrogen storage alloy; Metal hydride electrode; Low-temperature capacity; Pattern recognition method (Ye, H. (111) 145)

Hybrid capacitor

Supercapacitor; Electrochemical capacitor; Energy storage (Park, J.H. (111) 185)

Hydriding and dehydriding

Metal hydrides;  $AB_2$  alloys; Electrochemical studies; Etching (Ramya, K. (111) 335)

Hydrogen production

Low temperature; Methane reforming; Fuel cells; Nickel catalyst (Liu, Z.-W. (111) 283)

Hydrogen storage alloy

Metal hydride electrode; High-rate capability; Low-temperature capacity; Pattern recognition method (Ye, H. (111) 145)

Impedance

Carbon electrode; Lithium-ion battery; Storage time (Song, J.Y. (111) 255)

Impedance

High-power; Lithium-ion (Bloom, I. (111) 152)

Iodine-containing

Lithium-ion battery; Lithium manganese oxide (Han, C.-H. (111) 176) Ion-conducting membrane

Electrolyte model; Oxygen semi-permeability; Ceramic oxygen generator; Solid oxide fuel cell (Chan, S.H. (111) 320)

Lead-acid

Recombinant-battery separator mat; Valve-regulated; Absorptive-glass microfiber (McGregor, K. (111) 288)

Li-ion cell

Cycle-life; Charge voltage; Charge rate; Float charge (Choi, S.S. (111) 130)

Li-ion cells

 $LiCoO_2$ ; Cell-Batt<sup>®</sup>; Capacity fade; Sony 18650; Spinel (Ramadass, P. (111) 210)

Li-ion cells

Ohmic resistivity; Voltage drop; Co doped nickelates; Cathode materials (Moshtev, R. (111) 39)

LiCoO<sub>2</sub>

Li-ion cells; Cell-Batt®; Capacity fade; Sony 18650; Spinel (Ramadass, P. (111) 210)

LiCoO<sub>2</sub>

Starch-assisted combustion synthesis; Electrochemical activity; Crystallinity; LiMn<sub>2</sub>O<sub>4</sub>; Lithium cathodes (Kalyani, P. (111) 232)

LiMn<sub>2</sub>O<sub>2</sub>

Starch-assisted combustion synthesis; Electrochemical activity; Crystallinity; LiCoO<sub>2</sub>; Lithium cathodes (Kalyani, P. (111) 232)

LiNiO<sub>2</sub>

Sol-gel method; Optimum synthesis condition; Preheating; Calcination; Electrochemical properties (Song, M.Y. (111) 97)

Lithium batteries

Carbon additives; Conducting agent; Carbon blacks; Graphite (Hong, J.K. (111) 90)

Lithium cathodes

Starch-assisted combustion synthesis; Electrochemical activity; Crystallinity; LiCoO<sub>2</sub>; LiMn<sub>2</sub>O<sub>4</sub> (Kalyani, P. (111) 232)

Lithium insertion

Polyanion; Redox potential; Battery (Manickam, M. (111) 104)

Lithium intercalation/de-intercalation

Carbon anodes; Graphite fibres; Mesocarbon microbeads; Hard carbon materials (Noel, M. (111) 193)

Lithium ion batteries

Graphite anode; Encapsulation; Poly(acrylonitrile) (Guo, K. (111) 350)

Natural graphite; Nitric acid; Anode material (Wu, Y.P. (111) 329)

Lithium manganese oxide

Lithium-ion battery; Iodine-containing (Han, C.-H. (111) 176)

Lithium perchlorate

Polymer electrolytes; Lithium triflate; Plasticizers (Silva, M.M. (111) 52)

Lithium triflate

Polymer electrolytes; Lithium perchlorate; Plasticizers (Silva, M.M. (111) 52)

Lithium-ion battery

Carbon electrode; Impedance; Storage time (Song, J.Y. (111) 255)

Lithium-ion battery

Iodine-containing; Lithium manganese oxide (Han, C.-H. (111) 176) Lithium-ion

High-power; Impedance (Bloom, I. (111) 152)

Low temperature

Hydrogen production; Methane reforming; Fuel cells; Nickel catalyst (Liu, Z.-W. (111) 283)

Low-temperature capacity

Hydrogen storage alloy; Metal hydride electrode; High-rate capability; Pattern recognition method (Ye, H. (111) 145)

**MCMB** 

Pt-Ru catalyst; Methanol electrooxidation (Liu, Y.-C. (111) 160) Mesocarbon microbeads

Carbon anodes; Lithium intercalation/de-intercalation; Graphite fibres; Hard carbon materials (Noel, M. (111) 193)

Metal hydride electrode

Hydrogen storage alloy; High-rate capability; Low-temperature capacity; Pattern recognition method (Ye, H. (111) 145)

Metal hydrides

AB<sub>2</sub> alloys; Electrochemical studies; Etching; Hydriding and dehydriding (Ramya, K. (111) 335)

Methane reforming

Hydrogen production; Low temperature; Fuel cells; Nickel catalyst (Liu, Z.-W. (111) 283)

Methanol electrooxidation

MCMB; Pt-Ru catalyst (Liu, Y.-C. (111) 160)

Micro powergeneration

Formic acid; Portable power; Polymer electrolyte membrane (PEM) fuel cells (Rice, C. (111) 83)

Microbattery

Thin film; Anode; Tin-alloying; Cycling performance (Lee, S.-J. (111) 345)

Microfibrous substrate

Nickel oxide batteries; Nickel hydrogen cells (Zhu, W.H. (111) 221) Mixed-reactant anode

Selective anode; Direct methanol fuel cell; Numerical modelling (Shukla, A.K. (111) 43)

Modelling

Simulation; State estimation; State-of-health; VRLA battery (Tenno, A. (111) 65)

Molten carbonate fuel cell (MCFC)

Gas turbines; Power systems simulation (Jurado, F. (111) 121)

Molten carbonate

Cobalt substituted nickel oxide; Fuel cell; Dissolution (Ganesan, P. (111) 109)

Nanosize alumina

ac Impedance; Ambient temperature use; Composite solid polymer electrolyte; Cyclic voltammetry; Polymer chain reorganization (Nookala, M. (111) 165)

Natural graphite

Lithium ion batteries; Nitric acid; Anode material (Wu, Y.P. (111) 329) Nickel catalyst

Hydrogen production; Low temperature; Methane reforming; Fuel cells (Liu, Z.-W. (111) 283)

Nickel hydrogen cells

Microfibrous substrate; Nickel oxide batteries (Zhu, W.H. (111) 221)

Nickel oxide batteries

Microfibrous substrate; Nickel hydrogen cells (Zhu, W.H. (111) 221) Nickel oxide

Anodic deposition; Cyclic voltammetry; Potentiostatic deposition; Nickel-based battery (Hu, C.-C. (111) 137)

Nickel-based battery

Nickel oxide; Anodic deposition; Cyclic voltammetry; Potentiostatic deposition (Hu, C.-C. (111) 137)

Nitric acid

Lithium ion batteries; Natural graphite; Anode material (Wu, Y.P. (111) 329)

Numerical modelling

Mixed-reactant anode; Selective anode; Direct methanol fuel cell (Shukla, A.K. (111) 43)

Ohmic resistivity

Li-ion cells; Voltage drop; Co doped nickelates; Cathode materials (Moshtev, R. (111) 39)

Optimum synthesis condition

Sol-gel method; LiNiO<sub>2</sub>; Preheating; Calcination; Electrochemical properties (Song, M.Y. (111) 97)

Oxide

Creep; Diffusion; Fuel cell; Fluorite (Wolfenstine, J. (111) 173)

Oxygen semi-permeability

Electrolyte model; Ion-conducting membrane; Ceramic oxygen generator; Solid oxide fuel cell (Chan, S.H. (111) 320)

Pattern recognition method

Hydrogen storage alloy; Metal hydride electrode; High-rate capability; Low-temperature capacity (Ye, H. (111) 145)

Plasticizer effect

Battery electrochemical cell; Electrical conductivity; Transport number; Polymer (Subba Reddy, Ch.V. (111) 357)

Plasticizer

Polymer electrolytes; Lithium perchlorate; Lithium triflate (Silva, M.M. (111) 52)

Poly(acrylonitrile)

Lithium ion batteries; Graphite anode; Encapsulation (Guo, K. (111) 350)

Polyanion

Lithium insertion; Redox potential; Battery (Manickam, M. (111) 104)

Polymer chain reorganization

ac Impedance; Ambient temperature use; Composite solid polymer electrolyte; Cyclic voltammetry; Nanosize alumina (Nookala, M. (111) 165)

Polymer electrolyte membrane (PEM) fuel cells

Formic acid; Portable power; Micro powergeneration (Rice, C. (111) 83) Polymer electrolytes

Lithium perchlorate; Lithium triflate; Plasticizers (Silva, M.M. (111) 52)

Battery electrochemical cell; Electrical conductivity; Transport number; Plasticizer effect (Subba Reddy, Ch.V. (111) 357)

Portable power

Formic acid; Micro powergeneration; Polymer electrolyte membrane (PEM) fuel cells (Rice, C. (111) 83)

Potentiostatic deposition

Nickel oxide; Anodic deposition; Cyclic voltammetry; Nickel-based battery (Hu, C.-C. (111) 137)

Power systems simulation

Gas turbines; Molten carbonate fuel cell (MCFC) (Jurado, F. (111) 121) Preheating

Sol-gel method; LiNiO<sub>2</sub>; Optimum synthesis condition; Calcination; Electrochemical properties (Song, M.Y. (111) 97)

Proton-exchange membrane fuel cell

Activation (Qi, Z. (111) 181)

Proton-exchange membrane fuel cell

CO-tolerant cathode catalyst (Qi, Z. (111) 239)

Pt-Ru catalyst

MCMB; Methanol electrooxidation (Liu, Y.-C. (111) 160)

Pulse current

Alkaline batteries; Electrolytic manganese dioxide; Electrodeposition (Ghaemi, M. (111) 248)

Recombinant-battery separator mat

Valve-regulated; Lead-acid; Absorptive-glass microfiber (McGregor, K. (111) 288)

Redox potential

Polyanion; Lithium insertion; Battery (Manickam, M. (111) 104)

Selective anode

Mixed-reactant anode; Direct methanol fuel cell; Numerical modelling (Shukla, A.K. (111) 43)

Simulation

Modelling; State estimation; State-of-health; VRLA battery (Tenno, A. (111) 65)

Sol-gel method

LiNiO<sub>2</sub>; Optimum synthesis condition; Preheating; Calcination; Electrochemical properties (Song, M.Y. (111) 97)

Solid oxide fuel cell

Electrolyte model; Ion-conducting membrane; Oxygen semi-permeability; Ceramic oxygen generator (Chan, S.H. (111) 320)

Sony 18650

Li-ion cells; LiCoO<sub>2</sub>; Cell-Batt<sup>®</sup>; Capacity fade; Spinel (Ramadass, P. (111) 210)

Spinel

Li-ion cells; LiCoO<sub>2</sub>; Cell-Batt<sup>®</sup>; Capacity fade; Sony 18650 (Ramadass, P. (111) 210)

Stack

DMFC; System; Efficiency (Dohle, H. (111) 268)

Starch-assisted combustion synthesis

Electrochemical activity; Crystallinity; LiCoO<sub>2</sub>; LiMn<sub>2</sub>O<sub>4</sub>; Lithium cathodes (Kalyani, P. (111) 232)

State estimation

Modelling; Simulation; State-of-health; VRLA battery (Tenno, A. (111) 65)

State-of-health

Modelling; Simulation; State estimation; VRLA battery (Tenno, A. (111) 65)

Storage time

Carbon electrode; Impedance; Lithium-ion battery (Song, J.Y. (111) 255)

Supercapacitor

Electrochemical capacitor; Hybrid capacitor; Energy storage (Park, J.H. (111) 185)

System

DMFC; Stack; Efficiency (Dohle, H. (111) 268)

Thin film

Anode; Tin-alloying; Microbattery; Cycling performance (Lee, S.-J. (111) 345)

Tin-alloying

Thin film; Anode; Microbattery; Cycling performance (Lee, S.-J. (111) 345)

Transport number

Battery electrochemical cell; Electrical conductivity; Plasticizer effect; Polymer (Subba Reddy, Ch.V. (111) 357)

Ultra-microtoming

VRLA; Corrosion layer; EPMA (Ball, R.J. (111) 23)

Valve-regulated lead-acid battery

Coup de fouet; Voltage dip; Capacity; Backup power system (Pascoe, P.E. (111) 304)

Valve-regulated

Recombinant-battery separator mat; Lead-acid; Absorptive-glass microfiber (McGregor, K. (111) 288)

Voltage dip

Coup de fouet; Capacity; Valve-regulated lead-acid battery; Backup power system (Pascoe, P.E. (111) 304)

Voltage drop

Li-ion cells; Ohmic resistivity; Co doped nickelates; Cathode materials (Moshtev, R. (111) 39)

VRLA battery

Modelling; Simulation; State estimation; State-of-health (Tenno, A. (111) 65)

VRLA

Corrosion layer; EPMA; Ultra-microtoming (Ball, R.J. (111) 23)